

CLAIMS

1. An apparatus to prepare media, comprising:
 - a media path;
 - a reader to read location information from a location indicator, the location information indicating a location along the media of a circuit carried by the media;
 - a first media tool positioned along the media path and selectively actuatable to perform an action on at least a portion of the media moving along the media path,
 - a media position detector positioned to detect a position of the media with respect to the first media tool as the media moves along the media path;
 - at least a first actuator mechanically coupled to selectively retract the first media tool with respect to the media path; and
 - a controller coupled to receive position information from the media position detector and location information from the reader, the controller configured to compare the position information and the location information and to provide signals to the first actuator to increase a distance between the first media tool and the media path when the location of the circuit carried by the media is proximate the first media tool and to decrease the distance between the first media tool and the media path when the location of circuit carried by the media is distal the first media tool.
2. The apparatus of claim 1 wherein the reader comprises at least one of an optical scanner, an imager, a radio frequency identification interrogator and a magnetic sensor and wherein the media position detector comprises at least one of an optical sensor, a rotational encoder, and a magnetic sensor.
3. The apparatus of claim 1 wherein the first media tool comprises at least one of a printhead, a platen and a cutting head.

4. The apparatus of claim 1 wherein the media path is fixed and the first media tool is moved.
5. The apparatus of claim 1 wherein the media path is moved and the first media tool is fixed.
6. The apparatus of claim 1 wherein the location indicator is carried by the media.
7. The apparatus of claim 1 wherein the location indicator is carried by a media carrier on which the media is carried.
8. The apparatus of claim 1 wherein the location indicator is printed on the media.
9. The apparatus of claim 1 wherein the location indicator is encoded in a radio frequency identification circuit carried by at least one of the media and a media carrier on which the media is carried.
10. The apparatus of claim 1, further comprising:
a printhead proximate the media path and positioned before the first media tool with respect to a direction of movement of the media along the media path to print the location indicator on the media.
11. A media preparation apparatus, comprising:
a media path;
a reader to read location information identifying at least one location of an object carried by a media;

a media position detector positioned along the media path to detect a position of the media as the media moves along the media path;

a first media tool positioned along the media path and selectively actuatable to perform an action on at least a portion of the media moving along the media path, a distance between the first media tool and the media path being selectively adjustable between at least a first distance where the first media tool is proximate the media path and a second distance where the first media tool is distal from the media path with respect to the first distance; and

a controller coupled to receive position information from the media position detector and location information from the reader, the controller configured to control the distance of the first media tool with respect to the media path based at least in part on the position information and the location information.

12. The media preparation apparatus of claim 11 wherein the controller is configured to increase the distance between the first media tool and the media path when the position information indicates a position approximately matching a location identified by the location information

13. The media preparation apparatus of claim 11 wherein the controller is configured to increase the distance between the first media tool and the media path when the position information indicates a position approximately matching a location identified by the location information and to decrease the distance between the first media tool and the media path when the position information does not indicate a position approximately matching a location identified by the location information.

14. The media preparation apparatus of claim 11 wherein the reader comprises at least one of an optical scanner, an imager, a radio frequency identification interrogator and a magnetic sensor.

15. The media preparation apparatus of claim 11 wherein the media position detector comprises at least one of an optical sensor, a rotational encoder, and a magnetic sensor.

16. The media preparation apparatus of claim 11 wherein the first media tool comprises printhead and the action is printing.

17. The media preparation apparatus of claim 11 wherein the first media tool comprises a cutting head and the action is at least one of cutting, perforating and scoring.

18. The media preparation apparatus of claim 11 wherein the media path is fixed and the first media tool is moved.

19. The media preparation apparatus of claim 11 wherein the media path is moved and the first media tool is fixed.

20. The media preparation apparatus of claim 11, further comprising:
a platen that forms a portion of the media path, where the platen is moved and the media tool is fixed.

21. The media preparation apparatus of claim 11, further comprising:
a second media tool positioned along the media path and selectively actuatable to perform an action on at least a portion of the media moving along the media path, a distance between at least a third distance where the second media tool is proximate the media path and a fourth distance where the second media tool is distal from the media path with respect to the first distance.

22. The media preparation apparatus of claim 11 wherein the controller comprises a programmed microprocessor.

23. The media preparation apparatus of claim 11, further comprising:
a number of rollers forming at least a portion of the media path.

24. The media preparation apparatus of claim 11 wherein the object carried by the media is a radio frequency identification circuit and the location information corresponds to a location of the radio frequency identification circuit along the media.

25. The media preparation apparatus of claim 11 wherein the object carried by the media is a radio frequency identification circuit and the location information identifies a location of the radio frequency identification circuit along the media and is stored by the radio frequency identification circuit.

26. The media preparation apparatus of claim 11, further comprising:
a printhead proximate the media path and positioned before the first media tool with respect to a direction of movement of the media along the media path to print the location indicator on the media.

27. A media, comprising:
a substrate;
a number of radio frequency identification circuits carried by the substrate;
and
at least one location indicator indicating a position of at least one of the radio frequency identification circuits on to the media.

28. The media of claim 27 wherein the location indicator is carried by the media.

29. The media of claim 27 wherein the location indicator is carried by a media carrier on which the media is carried.

30. The media of claim 27 wherein the location indicator is printed.

31. The media of claim 27 wherein the location indicator is encoded in a radio frequency identification circuit carried by at least one of the media and a media carrier.

32. The media of claim 27 wherein the indicator is printed on the substrate.

33. The media of claim 27, further comprising:
an adhesive layer carried by the substrate.

34. The media of claim 27, further comprising:
an adhesive layer carried by the substrate; and
a release liner overlying the adhesive layer, wherein the location indicator is printed on the release liner.

35. A method of preparing a media, comprising:
reading location information from a location indicator carried by the media,
the location indicator identifying at least one location of a circuit along the media;
determining a position of the media along a media path with respect to at least a first media tool as the media moves along the media path;

comparing the position of the media along the media path and the location information;

increasing a distance between the first media tool and the media path when the location of the circuit carried by the media is proximate the first media tool; and

decreasing the distance between the first media tool and the media path when the location of circuit carried by the media is distal the first media tool.

36. The method of claim 35 wherein reading location information from a location indicator comprises one of: optically reading at least one optical marking from the media, magnetically reading at least one magnetic marking from the media, interrogating a radio frequency identification circuit carried by the media, and interrogating a radio frequency identification circuit carried by a media carrier that carries the media.

37. The method of claim 35 wherein determining a position of the media along a media path with respect to at least a first media tool comprises detecting at least one of optical markings on the media, detecting magnetic markings on the media, and detecting an angular position of a roller forming a portion of the media path.

38. The method of claim 35 wherein increasing a distance between the first media tool and the media path comprises moving at least one of a printhead, a platen and a cutting head in a direction normal to the media path.

39. The method of claim 35, further comprising:
printing at least one location indicator on the media before reading the location information from the location indicator.

40. A method of preparing a media, comprising:
reading location information identifying at least one location of an object carried by the media;

determining a position of the media along a media path;
determining when to adjust a distance between a first media tool and the media path based at least in part of the location information and the position of the media along the media path; and

adjusting the distance between the first media tool and the media path based on the determination.

41. The method of claim 40 wherein determining when to adjust a distance between a first media tool and the media path based at least in part of the location information and the position of the media along the media path includes determining to increase the distance between the first media tool and the media path when the position information indicates a position approximately matching a location identified by the location information and determining to decrease the distance between the first media tool and the media path when the position information does not indicate a position approximately matching a location identified by the location information.

42. The method of claim 40 wherein reading location information identifying at least one location of an object carried by the media comprises optically reading at least one optical marking from the media.

43. The method of claim 40 wherein reading location information identifying at least one location of an object carried by the media comprises magnetically reading at least one magnetic marking from the media.

44. The method of claim 40 wherein reading location information identifying at least one location of an object carried by the media comprises interrogating a radio frequency identification circuit carried by the media.

45. The method of claim 40 wherein reading location information identifying at least one location of an object carried by the media comprises interrogating a radio frequency identification circuit carried by a media carrier that carries the media.

46. The method of claim 40 wherein determining a position of the media along a media path comprises detecting at least one of optical markings on the media and magnetic markings on the media.

47. The method of claim 40 wherein determining a position of the media along a media path comprises detecting an angular position of a roller forming a portion of the media path.

48. The method of claim 40 wherein adjusting the distance between the first media tool and the media path comprises moving at least one of a printhead and a platen in a direction normal to the media path.

49. The method of claim 40 wherein adjusting the distance between the first media tool and the media path comprises moving at least one of a cutting head and a platen in a direction normal to the media path.

50. The method of claim 40 wherein adjusting the distance between the first media tool and the media path comprises moving the media path in a direction normal to the first media tool where the first media tool is fixed.

51. The method of claim 40, further comprising:
printing at least the one location indicator on the media before reading the location information from the location indicator.

52. An apparatus to prepare a media, comprising:
means for reading location information from a location indicator, the location indicator identifying at least one location along the media of a circuit carried by the media;
means for determining a position of the media along a media path with respect to at least a first media tool as the media moves along the media path;
means for comparing the position of the media along the media path and the location information; and
positioning means for increasing a distance between the first media tool and the media path when the location of the circuit carried by the media is proximate the first media tool and decreasing the distance between the first media tool and the media path when the location of circuit carried by the media is distal the first media tool.

53. The apparatus of claim 52 wherein the means for reading location information from a location indicator comprises at least one of an optical scanner, an imager, a radio frequency identification interrogator and a magnetic sensor.

54. The apparatus of claim 52 wherein the means for determining a position of the media along a media path comprises at least one of an optical sensor, a rotational encoder, and a magnetic sensor.

55. The apparatus of claim 52 wherein the means for comparing the position of the media along the media path and the location information comprises a microprocessor.

56. The apparatus of claim 52 wherein the positioning means comprises an actuator.

57. A media preparation apparatus, comprising:
a media path;
a reader to read location information identifying at least one location of an object carried by a media;
a media position detector positioned along the media path to detect a position of the media as the media moves along the media path;
a first media tool positioned along the media path and selectively actuatable to perform an action on at least a portion of the media moving along the media path; and
a controller coupled to receive position information from the media position detector and location information from the reader, the controller configured to selectively actuate the first media tool to perform the action on the portion of the media based at least in part on the position information and the location information.

58. The media preparation apparatus of claim 57 wherein the controller is configured to actuate the first media tool to perform the action on the portion of the media only when the position information does not indicate a position approximately matching a location identified by the location information.

59. The media preparation apparatus of claim 57 wherein the first media tool comprises printhead and the action is printing.